**Chapter 1 Sect 1.3: Properties of matter**

**Vocabularies:**

**Physical** **properties**: properties are readily observable, like; color, size, luster, or smell.

**Chemical properties: properties** are only observable during a chemical reaction.  For example, you might not know if sulfur is combustible unless you tried to burn it.

**Extensive properties**: properties, which depend on the size of the sample involved. A large sample of carbon would take up a bigger area than a small sample of carbon, so volume is an extensive property. Some of the most common types of extensive properties are; length, volume, mass and weight.

**Intensive properties:** properties, which **do not** depend on the size of the sample involved. For example: density, freezing point, color, melting point, reactivity, conductivity.

**Physical changes:** changes in the form of matter but not in its chemical identity. For example: water in it liquid state is frozen to ice cubes; tearing papers; breaking glass.

**Chemical changes** (a.k.a. Chemical reactions): changes in which one or more kinds of matter (s) are transformed into new matter or several new kinds of matters. For example: decomposition of leaves, burning paper, cooking.

References:

College Chemistry at Fordham University

<http://www.fordhamprep.org/gcurran/sho/sho/lessons/lesson15.htm>

Quiz

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| **1.** Which of the following is a chemical property of a slice of chocolate cake? |

1. Volume
2. Color
3. Mass
4. Dietary calories
5. Temperature

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| **2.** Which of the following is an extensive property of coffee in a mug? |

1. Percent sugar
2. Temperature
3. Total mg of caffeine
4. Color
5. Cream added per mL of coffee

3. Which of the following is a physical property?

a. temperature

b. explosiveness

c. toxicity

d. flammability

e. corrosiveness

4. Which of the following is an extensive property?

a. melting point

b. temperature

c. color

d. hardness

e. volume

5. Which of the following is an intensive property?

a. number of atoms

b. weight

c. density

d. volume

e. mass

Answers: d, c, a, e, c